

WHAT IS CLAIMED IS:

1. A distal protection device comprising a catheter having a first strut movable from a collapsed configuration to an expanded configuration and a second strut axially spaced from the first strut and movable from a collapsed configuration to an expanded configuration, the first strut having a first dimension and the second strut having a second dimension larger than the first dimension, the first and second struts being separately deployable, wherein movement of the first strut deploys filtering material to a first position having a first deployed dimension and movement of the second strut deploys filtering material to a second deployed dimension larger than the first deployed dimension.
2. The device of claim 1, wherein the first strut is positioned proximal of the second strut.
3. The device of claim 1, wherein the first strut is positioned distal of the second strut.
4. The device of claim 1, wherein the first and second struts are deployed laterally of the catheter and form loop openings lying in a plane substantially transverse to a longitudinal axis of the catheter and substantially transverse to a direction of blood flow.
5. The device of claim 1, wherein each of the first and second struts in the expanded position forms a loop with an opening such that an axis through the opening parallel to a longitudinal axis of the catheter.
6. The device of claim 1, wherein the first strut deploys a first filtering material and the second strut deploys a separate filtering material.
7. The device of claim 4, further comprising an actuating member slidably positioned within the catheter and wherein initial movement of the actuating member initially moves either the first strut or second strut from the collapsed position to the expanded configuration to form the loop opening.

8. The device of claim 7, wherein further movement of the actuating member moves the remaining collapsed strut to the expanded configuration to form loop opening.

9. The device of claim 7, wherein the first and second struts are formed from a laser cut tube and the actuating member is operatively connected to a portion of the tube for moving the portion of the tube between first and second positions to compress and expand the struts.

10. The device of claim 1, wherein the filtering material is a wire braid composed of a shape memory metal.

11. A distal protection device comprising a tube having a plurality of cutouts forming at least one distal elongated strut and at least one proximal elongated strut, the struts movable from a retracted to an expanded position, filter material overlying at least a portion of the struts, and an actuating member operatively connected to a portion of the tube wherein movement of the actuating member moves the portion of the tube to thereby move the at least one distal elongated strut and the at least one proximal elongated strut to the expanded position.

12. The device of claim 11, wherein movement of the actuating member in a first direction retracts the portion of the tube to compress and thereby expand either of the at least one elongated struts and movement of the actuating member in a reverse direction advances the portion of the tube to move the at least one elongated strut to the retracted position.

13. The device of claim 12, wherein further movement of the actuating member in the first direction expands the other of the elongated struts.

14. The device of claim 11, wherein the at least one distal elongated strut has a length greater than a length of the proximal elongated strut such that upon expansion, the distal elongated strut expands to a transverse dimension greater than a transverse dimension of the proximal strut.

15. The device of claim 11, wherein the at least one distal elongated strut has a length smaller than a length of the proximal elongated strut such that upon expansion, the distal elongated strut expands to a transverse dimension smaller than a transverse dimension of the proximal strut.
16. The device of claim 11, wherein the filter material comprises a first material positioned over the distal elongated strut and a separate material positioned over the proximal elongated strut.
17. The device of claim 11, wherein the filter material comprises a wire braid composed of a shape memory material.
18. The device of claim 11, wherein in the expanded position each of the elongated struts forms a loop having an opening lying in a plane substantially transverse to a longitudinal axis of the catheter and substantially transverse to a direction of blood flow.
19. The device of claim 11, wherein the filter material automatically moves back from an expanded position to a collapsed position upon movement of the at least one elongated strut to the retracted position.
20. The device of claim 11, wherein the at least one distal elongated strut and the at least one proximal elongated strut are separately movable between the retracted and expanded positions.
21. A distal protection device comprising a catheter having a tube formed with cutouts therein to form a first set of elongated struts and a second set of elongated struts, each of the elongated struts having a proximal end and a distal end, the elongated struts being movable between a retracted position and an expanded position wherein the distance between the proximal end and distal end in the retracted position is a first distance and the distance between the proximal end and distal end in the expanded position is a second distance less than the first distance, in the expanded position the elongated struts forming loops with an opening lying in a plane substantially parallel to a transverse axis of the tube, and filter material deployable by the loops of the struts, the first set of struts and the second set of struts being separately movable to

the expanded position to enable actuation of the first set of struts to accommodate a first size vessel and actuation of the second set of struts to accommodate a second different size vessel.

22. The device of claim 21, wherein the first set of elongated struts has a smaller buckling force than the second set of elongated struts such that upon actuation of an actuating member, the first set of elongated struts buckles fully to its expanded position and upon further actuation the second set of elongated struts buckles fully to its expanded position.

23. The device of claim 21, wherein the tube forms first and second collars and an actuating member is connected to the second collar such that the actuating member retracts the second collar to compress and thereby expand the elongated struts, and the first collar further acts as a stop.